REMARKS

Reconsideration of this patent application is respectfully requested in view of the foregoing amendments, and the following remarks. Claims 1-6 have been canceled and have been replaced by new claims 7-9. No new matter has been added.

The Examiner rejected claims 1-6 as being unclear. Applicant has re-written claims 1-6 as new claims 7-9. New claim 7 incorporates the elements of original claims 2 and 5, now canceled. The subject matter of claim 4 has been canceled entirely. Applicant has also deleted the term "groove root" from the claims, using instead "groove" where appropriate. The term "groove root" was meant to indicate the bottom boundary of the groove, as shown in FIG. 2 of the drawings. Applicant has also clarified that the groove of the center region has a transverse width that lies parallel to the longitudinal axis of the pin bore. This can be shown in FIGS.1 and 2 of the drawings. The longitudinal expanse of the groove itself is not parallel to the axis of the pin bore.

The Examiner rejected claims 1-6 under 35 USC 103 as being

unpatentable over Galli. Applicant respectfully traverses.

Galli describes capillary channels made in the inside of pin bores, which are configured in screw shape or as a greater number of grooves that lie parallel to one another, and that have a depth between 2 µm and 50 µm. For the production of these grooves, the method of "super-finishing," also called "lapping," is indicated in column 2, line 12 and 13. In general, it is known that the method of lapping is used to finish larger surfaces very smoothly. Capillary channels most likely cannot be produced using this lapping method. Therefore, working capillary channels into the inner surface of a pin bore, using the lapping method of Galli, in order to improve the lubrication of piston pins, probably cannot even be implemented at all. In any case, it is impossible to use the lapping method for the production of flat grooves according to the present invention. Therefore the present invention is not made obvious by Galli.

In any case, it would be impossible to produce the capillary channels of Galli that are formed in screw shape, using a lathe, and it would be extremely complicated to produce a greater number of capillary channels that lie parallel to one another, using a lathe tool.

This is the advantage of the flat groove according to the present invention. Claim 7 claims a groove where the angle between the portions of the groove facing the inside and outside of the piston, and the longitudinal axis of the pin bore is no more than 3°. The latter can, as explained in the application, be produced in simple manner, using the same lathe tool with which precision finishing of the inner surface of the pin bore is carried out.

The production of such a groove using the teachings of Galli is not possible or suggested.

Accordingly, Applicant submits that claims 7-9 are patentable over the cited reference, taken either singly or in combination. Early allowance of the new claims is respectfully requested.

Respectfully submitted,
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Enclosure: Information Disclosure Statement with eight (8) references.

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 6, 2006.

Kelly Espitia